SANDIS

May 31, 2022
Project No. 215015

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FILE NUMBER: **PLN14-10531 Gronwall Lane Planning Resubmittal**
Additional Information / Issues of Concerns for Building Site Approval and Variance

Dear XueLing,

The followings are responses to County of Santa Clara Department of Planning and Development Plan Check Comments dated December 17, 2021.

Planning Office Comments

Guidelines & Standards for Land Use Near Streams: A Manual of Tools, Standards, and Procedures to Protect Streams and Streamside Resources in Santa Clara County:

1. The project is subject to a Building Site Approval and Variance, which requires meeting stream setbacks per the "*Guidelines and Standards for Land Use Near Streams*."

   II. E. Slope Stability Protection Area for Single-Family Units
   The "Slope Stability Protection Area" is an area between a structure and the stream. For an Ephemeral Stream, 10-15 ft. measured from the top of the bank

   If a structure is proposed located closer to the top of bank than indicated by the slope stability requirements, this may serve as a trigger for local permitting agencies to require site-specific technical information related to precise slope conditions. If a property owner is proposing to place structures closer to a streamside slope than allowed by the Slope Stability Requirements, the permitting agency should require further study of on-site geotechnical soil and slope stability conditions. The purpose of this study is to determine.
   1. *Whether or not the location of a proposed structure may threaten bank stability, and*
   2. *Whether or not the bank instability may threaten structures and/or potentially cause a health and safety hazard.*

   Please also see Planning incomplete comment #1 for slope stability protection area location.

Response: Noted.

Land Development Engineering (Repeated)

2. The conclusions from Geo Forensic's Inc.'s revised slope stability report (dated June 7, 2021) note the following: …"we would recommend that no shallow improvements (e.g. slabs or spread footing supported elements) be located within 5 feet of the crest of the

creek bank. Any improvement within this zone may be supported by drilled piers designed in conformance with recommendations from a geotechnical engineer, or our office."

A retaining wall and portions of the driveway are proposed within 5-feet from the top of bank. How do the retaining wall and pervious paver driveway conform to GeoForensic's recommendations? Is this section of driveway intended to be cantilevered (fully supported by the pier foundation)? If so, why is the retaining wall necessary? Clarify how the wall and pervious paver section can be constructed in conformance with GeoForensic's recommendations.

Please note no details of the retaining wall design are submitted to address the previous comments.

Response: The driveway section is fully supported by the pier foundations and will be cantilevered. The retaining wall callout has been removed. Please refer to revised Sheet C-1.0.

Valley Water

Riparian Planting and Monitoring Plan (Geomorph Design/Wood Biological Consulting):

3. Sheet L1 of the Native Riparian Planting Plan calls out a "proposed swale into existing swale that directs runoff to the creek." All runoff from the proposed development should be directed to an existing storm drain system or storm drain outfall into the creek. Overbank drainage should be avoided to prevent erosion of the top of bank.

Response: Noted. Callout has been added to Landscape sheets.

4. Valley Water recommends the project biologist to provide field survey and/or data to substantiate the viability of the plantings proposed on Sheet L-1. The proposed plantings should be compatible with the existing site conditions, including but not limited to typical flow rates through Hale Creek (particularly during summer months and drought years); the existing soil type on the channel banks; and the amount of sunlight available for the proposed plantings. In a response to Planning and Development (County) on September 21, 2021, the applicant states that "the planting plan was developed by a qualified biologist using a complete field evaluation of the site conditions," **however there are no submittals detailing any field evaluations that were conducted**.

Response: Refer to Landscape sheets.

5. Valley Water advises the project biologist to ensure that the proposed plantings are established at an appropriate height on the channel bank so that moisture from the stream can wick up to the plantings. In the response to the County, the applicant notes that the comment "was addressed in the Planting Plan that was developed by a qualified biologist using a complete field evaluation of the site conditions." As noted in Comment 2, **no field survey and/or data is provided to substantiate the viability of the proposed plantings**.

Response: Refer to Landscape Plans.

Geoforensics Bank Stability Analysis/ Sandis Civil Plans Comments:

6. As per the Santa *Clara Valley Water Resources Protection Collaborative's (Collaborative) Guidelines and Standards for Land Use Near Streams*, the proposed construction is within the "protection or trigger area" for new structures built near streams; this requires the applicant to complete the following:

   i. Conduct a stability analysis by stream type and demonstrate development would not require introduction of hardscape in order to maintain active floodplain or active channel slope.

   ii. Show how maintenance or repair of the stream could be provided.

   To date, GeoForensics evaluated the bank failure plane under different saturation elevations while assuming a hypothetical surcharge load from the proposed development. The bank stability analysis and subsequent addendums from Geoforensics have not considered the potential for bank failure due to erosive forces within the creek. Valley Water recommends the following options to account for this mode of failure: 1) conduct an analysis to assess the potential for bank failure due to erosion; or 2) design the proposed pier and grade beam foundation under the assumption that the bank will fail at a 2:1 slope: this option would likely require additional piers to support the entire footprint of the proposed residence.
   Furthermore, the applicant should acknowledge and assume responsibility for any bank repair or stabilization work if needed due to failure or instability of the bank. Finally, in accordance with the Guidelines and Standards, the applicant should submit plans detailing how maintenance or repair of the creek bank can be provided if needed. Maintenance/repair plans should consider the type of work that may be necessary; the equipment that would be required; and whether adequate access is provided to perform these activities.

Response: Valley Water recommendations #1 &#2 above are a typical design criterion for structures built on or near a slope. The specific pier layout and location may alter slightly from what is conceptually shown, once final structural plans are developed, however, the current plans do demonstrate the typical spread and location of piers for a structure this size, built on or near a slope. Furthermore, the foundation design and pier number and layout will be finalized by a Structural engineer once Site development is approved, using the Geotechnical Engineers Soils report of site conditions. Comments #1 & #2 will be specifically addressed during the structural design of the Building and site improvements. Items #1 & #2 are welcomed as a condition of Site or Building approval, which seems to be the appropriate time to address the specific "nuts and bolts" of the structure.
The applicant does acknowledge and will assume responsibility for bank repair and stabilization. Specifics of applicant responsibility and how to maintain or repair bank are addressed in the Riparian Planting and Monitoring Plan Hale Creek Diaz Residence report along with the Landscape Plans L1-L3.

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7. The plans do not provide adequate details showing how runoff generated by the proposed residence will be managed; more specifically, the drainage path for the easterly portion of the house is not clear. Downspouts, which are directed towards the proposed swale, are only provided for the westerly portion of the residence. Elevation views provided in Via Builder's proposed Architectural Plans (Sheet A-6) show a pitched roof, which directs runoff away from the proposed downspouts located on the westerly side of the residence. Plans should clearly show the proposed drainage path for the easterly portion of the residence. Drainage towards the top of bank should be avoided to prevent erosion.

Response: There is no roof runoff that drains towards the top of the bank. The easterly portion of the residence drains into downspouts on the second floor which then discharges to the first floor downspouts. The building has four downspouts on the first floor that will be directed towards the proposed swale.

8. Sheet C-1 by Sandis shows a proposed retaining wall along the easterly limits of the driveway area. Plans should indicate an approximate height for the retaining wall, and if any weep holes are proposed for drainage purposes. All drainage from the retaining wall should be directed away from the top of bank.

Response: The driveway section is fully supported by the pier foundations and will be cantilevered. The retaining wall callout has been removed. See revised Sheet C-1.0 for top of curb, pavers and finish grade elevations.

If you have any questions, please feel free to contact our office.

Regards,

Nebiyu Taddesse
Project Engineer